Reg No.:_____ Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

FIFTH SEMESTER B.TECH DEGREE EXAMINATION, APRIL 2018

Course Code: CH301

Course Name: ENVIRONMENTAL ENGINEERING (CH)

Max. Marks: 100 Duration: 3 Hours

PART A

Answer any two full questions, each carries 15 marks Marks

1	a)	What are the methods used for Desalination of water?	(5)
	b)	Define Rapid Mix and Flocculation.	(5)
	c)	Define BOD and outline the steps in the standard 5-day BOD test.	(5)
2	a)	Describe in detail about Boiler Feed Water treatment.	(5)
	b)	What are the major Water Pollutants, Clearly define them.	(5)
	c)	Define COD& TOC, how these tests are used to quantify non-biodegradable matters in water.	(5)
3	a)	What are the salient features of Air Act, 1981?	(5)
	b)	List and explain the major Physical and Chemical characteristics of domestic wastewater.	(10)

PART B

Answer any two full questions, each carries 20 marks

4	a)	What is meant by Activated Sludge? Describe with neat sketches the treatment of sewage by Activated Sludge Process. Mention the advantages and disadvantages of this system.	(8)
	b)	Describe in brief various method used for Suspended Solids removal through Advanced Wastewater Treatment.	(5)
	c)	How do you propose to treat wastewater from a Dairy industry?	(7)
5	a)	Distinguish clearly between the working of an 'Oxidation Ditch' and 'Aerated Lagoon'.	(5)
	b)	Write in detail about unit operations associated with Preliminary treatment of wastewater.	(5)
	c)	Give the composition of a typical Pulp and Paper mill waste. Explain treatment of pulp and paper mill wastes with flow chart.	(10)
6	a)	Explain Anaerobic Filter Process and Up Flow Anaerobic Sludge Blanket Reactor with neat sketch.	(10)
	b)	What are the various treatment methods used for Hazardous wastes?	(10)

PART C

Answer any two full questions, each carries 15 marks

7	a)	Write notes on the following with the help of neat sketch:Electrostatic precipitators and Cyclone separators.	(10)
	b)	Distinguish between Primary and Secondary air pollutants with suitable examples.	(5)
8	a)	What are the various approaches to minimize Exhaust emissions?	(5)
	b)	What are Noise control methods?	(5)
	c)	Describe Atomic Absorption Spectroscopy method of analyzing sample in detail.	(5)
9	a)	Explain Global Warming and Ozone Depletion.	(5)
	b)	List out the Meteorological factors influencing Air Pollution.	(5)
	c)	List the common methods of control of Gaseous Contaminants and Describe any one of them in detail.	(5)

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